



Sun StorageTek™ 2500 Series DIMM Upgrade Guide

for Sun StorageTek™ 2510, 2530, and 2540 Arrays

Sun Microsystems, Inc.
www.sun.com

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Before You Upgrade

This document for upgrading dual in-line memory module (DIMM) cache memory explains how to replace the cache memory in a Sun StorageTek™ 2510 Array, a Sun StorageTek™ 2530 Array, or a Sun StorageTek™ 2540 Array. This upgrade replaces your 512 MB DIMM with a 1GB DIMM and enhances your array's capabilities.

This guide is for technicians, system administrators, authorized service providers (ASPs), and users who have experience with the 2500 Series array hardware. It explains how to remove the 512 MB DIMM and install the 1 GB DIMM; therefore, it can also be used for doing a same-size cache memory replacement.

Note – Before using the procedures described in this document, you must have a basic understanding of the array's hardware terminology.

The Sun StorageTek 2500 Series Array terminology is discussed in this related document:

- *Sun StorageTek 2500 Series Array Hardware Installation Guide* (820-0015).

Documentation, Support, and Training

Sun Function	URL
Documentation	http://www.sun.com/documentation/
Support	http://www.sun.com/support/
Training	http://www.sun.com/training/

Cache Upgrade or Replacement

This upgrade guide explains how to remove the 512MB DIMM and install the 1GB DIMM for your Sun StorageTek™ 2500 Series Array.

Note – Your 2500 array must have an optimal status and then be powered down before a DIMM upgrade is performed. Refer to the Service Advisor for power-down process steps to ensure that there is no I/O, the cache active LED is off, and that both of the controller's power switches are placed in the OFF position.

Written for technicians, system administrators, authorized service providers (ASPs), and users who have experience with the Sun StorageTek 2500 Series array, this upgrade document helps support the new capabilities of CAM 6.2 and later.

Note – If you have any problems during this upgrade, please contact customer support at <http://www.sun.com/support/>.

Process Steps

The DIMM upgrade process has two basic sections.

- Removing the 512MB DIMM. See “[Removing the DIMM](#)” on page 3.
- Installing the 1GB DIMM. See “[Installing the DIMM](#)” on page 6.

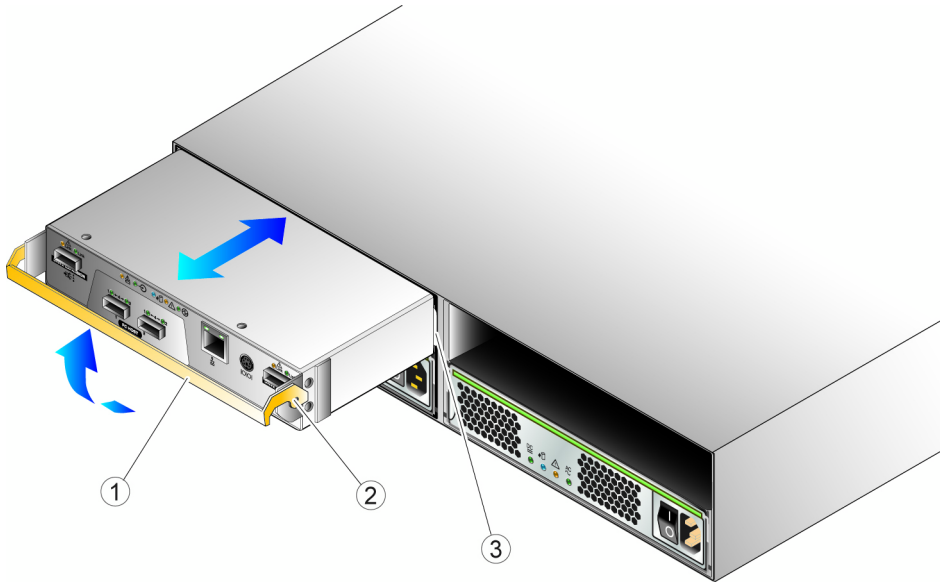
Note – Before you start this upgrade process, make sure you are aware of all safety information associated with working on a disk array, as well as the electrostatic discharge precautions necessary when handling electronic components.

▼ Removing the DIMM

To remove the DIMM from the controller module, complete the following steps:

1. Remove the controller module from the chassis.

FIGURE 1 Controller Removal



-
- | | |
|---|-----------|
| 1 | Handle |
| 2 | Guide Pin |
| 3 | Notch |
-

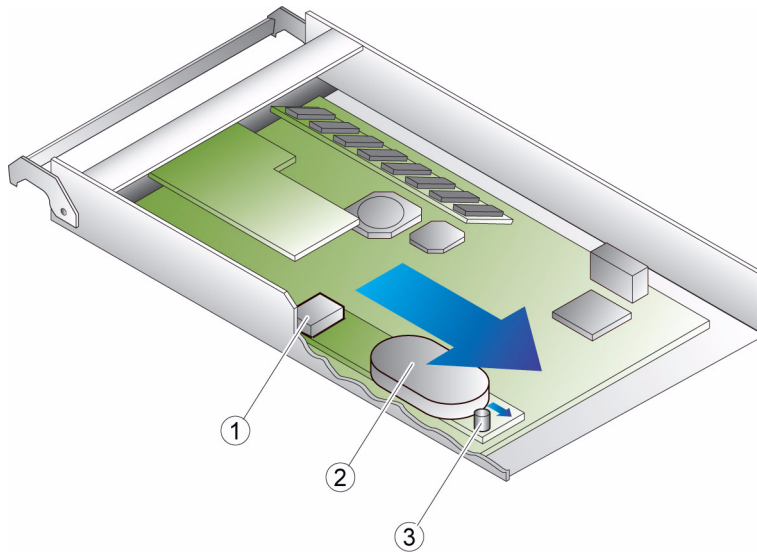
- a. On the left side of the controller module, press the orange release tab to the right just enough to release the handle; then, rotate the handle upward.
- b. Slowly pull the handle away from the chassis to remove the controller module from the bay.
- c. Place the controller module on a level surface.



Caution – Some electronic components are sensitive to electrostatic discharge. A static-free environment should be established before handling electronic components.

2. Remove the battery from the controller module.

FIGURE 2 Battery Removal

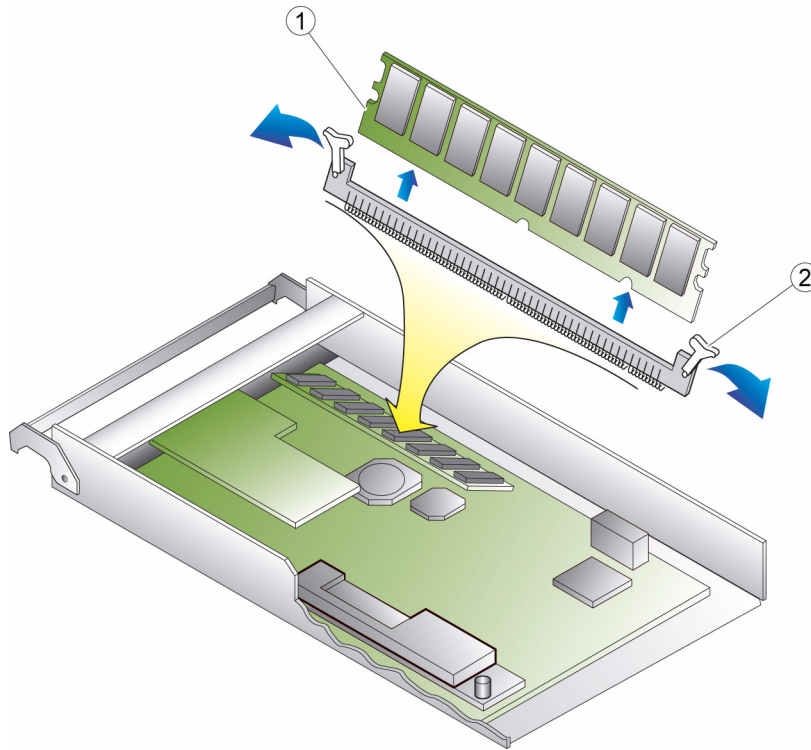


-
- | | |
|---|----------------------------|
| 1 | Battery Connector |
| 2 | Cache Memory Battery |
| 3 | Battery's Captive Fastener |
-

- a. Turn the blue captive fastener counterclockwise until the battery can move in the direction indicated by the arrow in the illustration above.
- b. Slide the battery unit out of the controller in the direction indicated by the arrow.
- c. Set the battery unit aside.

3. Remove the DIMM from the connector.

FIGURE 3 DIMM Extraction



1 DIMM

2 Retaining Clip

- a. Wait 60 seconds before you proceed, to allow any residual charge to drain from the controller.
- b. Open both the retaining clips [2] on each end of the DIMM connector.
- c. Lift the DIMM [1] out of the connector.
4. If the DIMM is functional (not failed), place the DIMM in a static-protective package, and set it aside for future use.
5. Install the new or replacement DIMM, following the procedure on the next page in this document.

▼ Installing the DIMM

After the controller is removed from the chassis and the battery is removed from the controller, complete the following steps to install the new DIMM:

1. Make sure at least 60 seconds has elapsed since you removed the battery from the controller.
2. Make sure you have a static-free environment.

The electrical grounding of both the chassis and personnel eliminates the build-up of a static charge.

3. Open the retaining clip on each end of the DIMM connector; then, remove the DIMM from the package.

Refer to [FIGURE 1](#), [FIGURE 2](#), and [FIGURE 3](#) for the next three steps.

4. Turn the DIMM so that the DIMM keys (notches in the gold finger connector area) align correctly with the slot.
5. Match the angle of the DIMM with the angle of the connector.
6. Firmly press the DIMM into the connector.

The retaining clips snap into the locked position when the DIMM is firmly seated in the connector. If there is a gap between the DIMM and the retaining clips, the DIMM has not been correctly inserted; open the retaining clips, remove the DIMM, and then reinsert it.

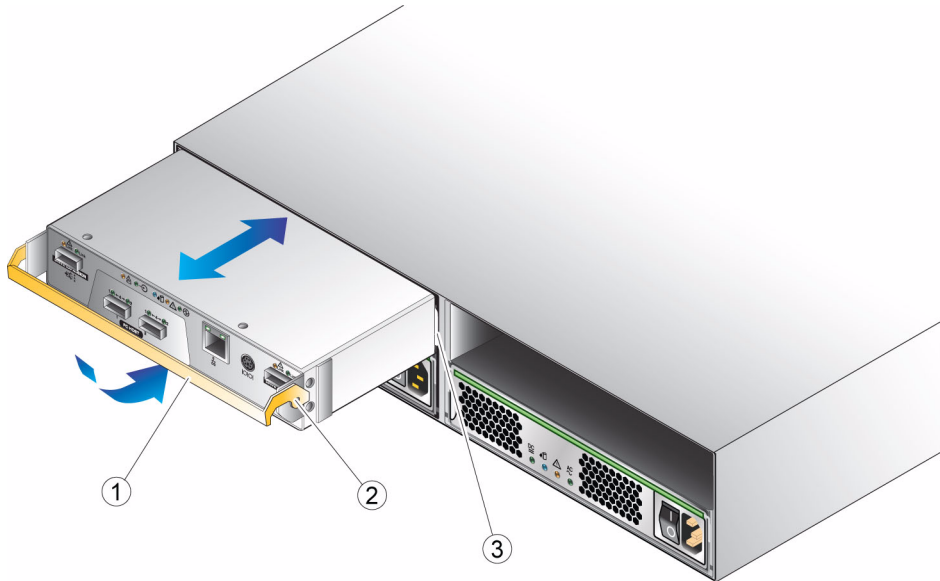
7. Reinstall the battery:
 - a. Slide the battery into the controller until the battery connector pins are firmly seated in the controller battery connector.
 - b. Turn the captive fastener clockwise to secure the battery in place.
8. Reinstall the controller.



Caution – After you remove a controller, wait for 70 seconds before you reseat or replace the controller. Failure to do so might cause unpredictable results.

- a. Slide the controller into the empty controller slot in the controller tray. Make sure the handle is pulled straight out as you slide the controller into the chassis.

FIGURE 4 Controller Installation



-
- | | |
|---|-----------|
| 1 | Handle |
| 2 | Guide Pin |
| 3 | Notch |
-

- b. Make sure the guide pins on the side of the controller fit into the notches on the chassis.
 - c. After the guide pins fit into the notches and the controller fits snugly into the bay, push the handle downward to fully latch it into place.
9. Repeat all of the steps to upgrade the cache in the other controller.

Note – You should not attempt to apply power to the controllers until both controllers are upgraded to the same cache memory size.
